

Backpack Considerations

- Development of spine continues until 18 years.
- Backpacks often are found to weigh more than 15% of student body weight.
- Loads more than 10% of body weight affect respiration, posture and gait.
- American Academy of Pediatrics says children should never carry more than 10-20% of body weight. A number of others recommend no more than 15%.



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What schools can do:

Get everyone involved

- Communicate with parents to increase awareness of backpack issues.
- Have students weigh their backpacks and calculate percentage body weight (it's math!).
- Survey students about discomfort.
- Brainstorm ways to reduce loads.
- Provide safe places for backpack storage.
- Develop backpack safety guidelines.



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BACKPACKS FOR STUDENTS



Backpack weight = BW _____
Student weight = SW _____

$BW/SW \times 100 =$ _____ percent of
body weight

KEEP IT UNDER 15%!

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Everyday, students around the world carry backpacks to and from school.

Students not only carry backpacks, they also carry such items as sports equipment, laptops or musical instruments to and from school.

In lower grades the backpacks are primarily used going to and from school. However, in middle and high school they are often carried throughout the day as lockers have been removed from most schools. Even with lockers students often keep their backpack with them.

Too often the weight of the backpack exceeds 15% of the body weight of the student. This could be associated with the high incidence of back pain among adolescents. Researchers find up to 60% of those under age 18 report having experienced significant back pain.



It's more than just a weight problem

Backpacks can also be a hazard when they are:

- Hoisted in and out of vehicles (twisting as well as lifting);
- Carried on stairs, over curbs or rough terrain or while riding a bicycle;
- On the ground (tripping hazard);
- Being put on or taken off; or
- Swung around (striking others or objects).

Parent role

Purchase backpacks that have two padded straps and fit snug on the low back.

Make weighing backpacks a family activity periodically throughout the year (even for middle and high school students).

Make emptying backpacks a weekly routine.

Ask your child whether they have any discomfort in neck, shoulders, or back during or after wearing backpack.

Signs that a backpack is too heavy

1. Struggling to get the backpack on or off
2. Pain when wearing the backpack
3. Discomfort, numbness or tingling after or during carrying;
4. Red marks on shoulders from straps;
5. Changes in the natural curves of the spine

Student role

Be sure to wear backpack with shoulder straps over both shoulders.

Keep the backpack snug

Empty backpack weekly and do not carry items that are not needed.

Store backpacks safely.

Do not swing or hit others with backpack.